The Gamma-ray Sky with Fermi

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Gamma rays reveal extreme, nonthermal conditions in the Universe. The Fermi Gamma-ray Space Telescope has been exploring the gamma-ray sky for more than four years, enabling a search for powerful transients like gamma-ray bursts, novae, solar flares, and flaring active galactic nuclei, as well as long-term studies including pulsars, binary systems, supernova remnants, and searches for predicted sources of gamma rays such as dark matter annihilation. Some results include a stringent limit on Lorentz invariance derived from a gamma-ray burst, unexpected gamma-ray variability from the Crab Nebula, a huge gamma-ray structure associated with the center of our galaxy, surprising behavior from some gamma-ray binary systems, and a possible constraint on some WIMP models for dark matter.

Short bio:

David Thompson is a Deputy Project Scientist for the Fermi Gamma-ray Space Telescope project. He is an astrophysicist in the Astroparticle Physics Laboratory at NASA's Goddard Space Flight Center in Greenbelt, Maryland. He previously worked on the SAS-2 and Compton Gamma Ray Observatory EGRET instruments, concentrating on gamma-ray pulsar and blazar studies. He is presently the Multiwavelength Coordinator for the Fermi Large Area Telescope team.